Project Overview

PROJECT METHODOLOGY

Review existing telecommunications network environment

Identify business requirements

Identify technical requirements

Identify service level requirements

Outline network architecture alternatives

Perform business case analysis

Outline organizational requirements

Identify best-in-class practices

Document recommended architecture

PHASE 1
ASSESSMENT

PHASE 2
NETWORK ARCHITECTURE ALTERNATIVES

PHASE 3
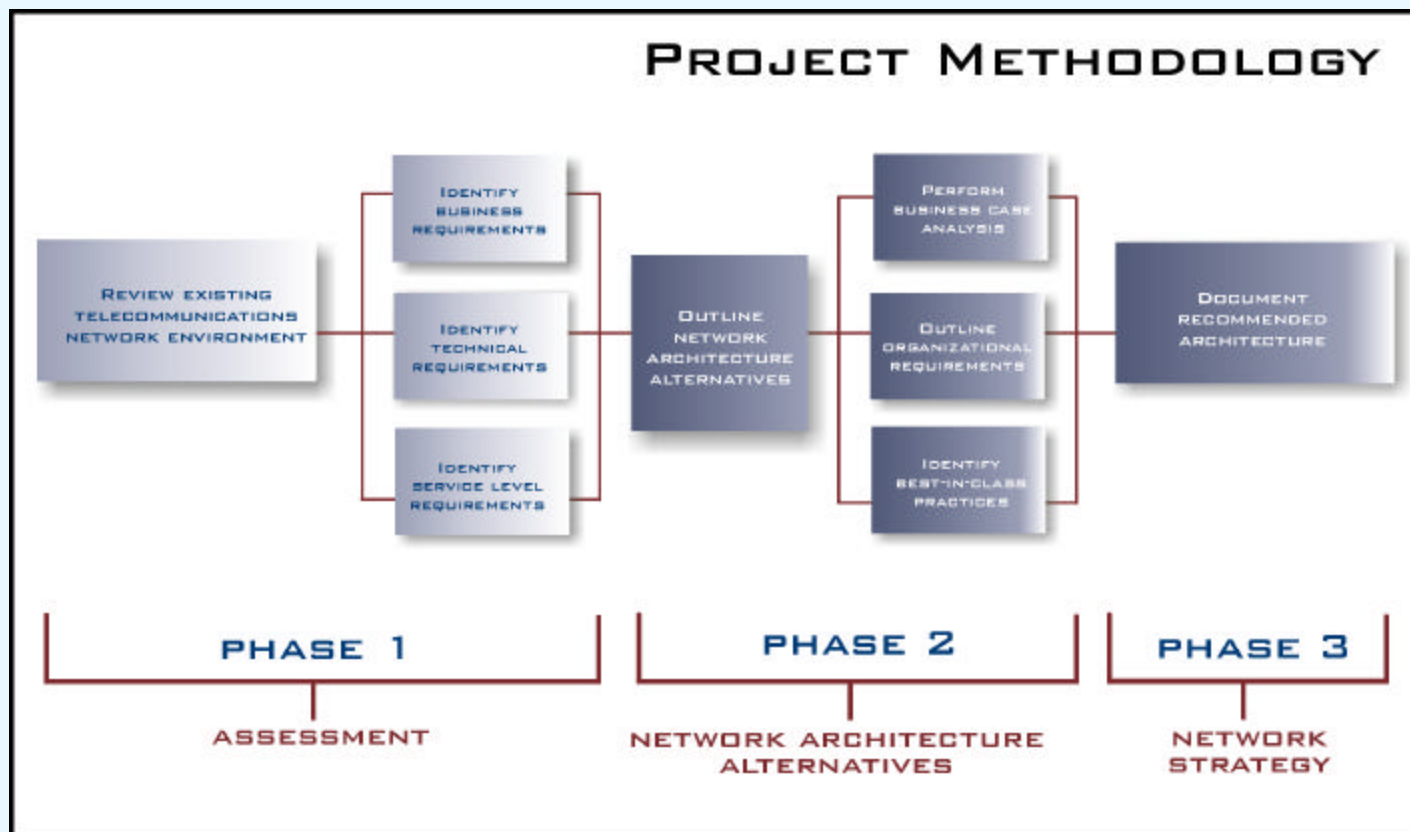NETWORK STRATEGY

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Communications & Networking

Summary of Findings

Introduction

The purpose of this phase of the engagement was to assess the City of Detroit's current telecommunications and network architecture. During the course of this assessment phase, it became apparent that each major Department in the City has been operating in an isolated environment, assessing their own requirements and acts independently of other operating departments within the City. The resulting telecommunications and network configuration has perhaps met the individual department requirements, but has done so at added cost and complexity to the City. The voice telecommunications platforms vary greatly between departments with no long-term strategy for interconnectivity. Numerous wide area network (WAN) connections exist with under utilized capacity in some areas yet duplicate circuits to many locations. WAN contract obligations vary widely with termination dates and commitments dependent on each department's needs rather than supporting connectivity needs for a building location. Although this approach has perhaps expedited delivery of services to individual departments, the cost and management of this configuration will require the City to continue to expend additional financial and personnel resources well beyond the intended efficiencies.

Currently, the City of Detroit is utilizing nearly 10,000 voice, data, and video circuits. The types of circuits include Centrex, OPX, T-1, T-3, ISDN, Radio, Metering and Signaling. The total annual cost is approximately $6,000,000. This cost is for circuit connectivity only. Usage costs are additional.

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Summary of Findings

Introduction

The project team performed a detailed assessment of the current telecommunications and network environment to establish baselines for future recommendations and alternatives for a wide area network strategy.

The following assessment observations are focused in these areas:

- ✓ Telecommunications - CENTREX
- ✓ Telecommunications – CENTREX voice mail
- ✓ Telecommunications - carrier services
- ✓ Telecommunications - City-owned telephone systems
- ✓ Data network - carrier services
- ✓ Data network - internetwork electronics
- ✓ Video network - Comcast CATV
- ✓ Public Lighting - conduit duct infrastructure
- ✓ Competitive telecommunications environment

On the following page is a diagram depicting the City's current voice and data network.